What is claimed is:

1. A dispersible dry powder for pulmonary delivery comprising a therapeutically effective amount of a therapeutic agent in combination with an aerogel particle which is soluble in human pulmonary surfactant.

2. The powder of Claim 1, wherein the aerogel particle is prepared by supercritical drying at a temperature of less than 40°C.

3. The powder of Claim 1, wherein the aerogel particle contains pores of about 1 to 100 nm.

4. The powder of Claim 1, wherein the aerogel particle has a surface area of about 100 to 1,200 m^2/g.

5. The powder of Claim 1, wherein the aerogel particle has a density of about 0.01 to 0.001 g/cc.

6. The powder of Claim 1, wherein the aerogel particle has a particle size of about submicron up to about 3 microns.

7. The powder of Claim 1, wherein the aerogel particle is a carrier selected from the group consisting of sugars and carbohydrates.

8. The powder of Claim 1, prepared by co-gelling the therapeutic agent with a gel-forming material selected from the group consisting of sugars and carbohydrates.

9. The powder of Claim 1, prepared by the steps of (i) preparing porous gels of a carrier material which is soluble in pulmonary surfactant; (ii) soaking the porous gels in a solution of the therapeutic agent; (iii) removing the solvent and forming aerogels by supercritical drying; and (iv) comminuting the aerogels.

10. The powder of Claim 1, wherein the therapeutic agent is insulin.

11. The powder of Claim 1, wherein the therapeutic agent is methadone.

12. The powder of Claim 1, wherein the therapeutic agent is naltrexone.

13. A method of treating a disease state responsive to treatment by a therapeutic agent comprising pulmonarily administering to a subject in need thereof a physiologically effective amount of a dispersible dry powder comprising a therapeutically effective amount of a therapeutic agent in combination with an aerogel particle which is soluble in human pulmonary surfactant.

14. The method of Claim 13, wherein the powder is prepared by supercritical drying at a temperature of less than 40°C.

15. The method of Claim 14, wherein the powder is prepared by co-gelling the therapeutic agent with a gel-forming material selected from the group consisting of sugars and carbohydrates.

16. A method of preparing a therapeutic dry powder suitable for pulmonary delivery which comprises supercritical drying at a temperature of less than 40°C. a wet gel containing pores and a therapeutic agent within the pores.